

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Joseph D. Rippolone

Serial No.: 10/787,429

Examiner: Gilbert, William V.

Filed: 2/26/2004

Group Art Unit: 3635

Title: FORCED AIR HEATED GUTTER SYSTEM

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL APPEAL BRIEF

This supplemental Appeal Brief is filed in response to the Notice of Appeal filed August 23, 2008, the original Appeal Brief filed October 22, 2008, and the Notification of Non-Compliant Appeal Brief, mailed on January 21, 2009. All appeal fees have been paid. Applicant believes that no additional fees are necessary, however, the Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds for any additional fees or credit the account for any overpayment.

Real Party in Interest

The real party in interest is Joseph D. Rippolone, assignee of the present invention.

Related Appeals and Interferences

There are no prior or pending appeals, interferences or judicial proceedings related to this appeal, or which may directly affect or may be directly affected by, or have a bearing on, the Board's decision in this appeal.

Status of Claims

Claims 1, 4, and 11 have been cancelled. Claims 2, 3, 5-10, and 12-16 are presently pending in the application. Claims 2, 3, 5-10, and 12-16 stand finally rejected and are appealed.

Status of Amendments

All amendments have been entered.

Summary of Claimed Subject Matter

The present disclosure is directed to a gutter thawing system. In one example, the system includes multiple gutter sections having a liquid flow passage and molded in hot-air flow passages adjacent the liquid flow passage. [Specification page 1, paragraph 5, lines 1-2] The multiple gutter sections allow the gutter thawing system to have dual pass hot-air flow passages and be easily adapted to a particular roof. [Specification page 1, paragraph 6, lines 3-4; page 2, paragraph 6, lines 1-2] The hot air flow passages are generally located within a bottom portion of the gutter section below the liquid passage. [Specification page 1, paragraph 6, lines 2-3] A hot-air source, such as a conventional hot-air type furnace, is in communication with the hot-air flow passages through a manifold for distributing the hot air through the multiple of gutter sections. [Specification page 1, paragraph 5, lines 2-4] One or more hot-air passages may function as an intake or a return depending on the manifold. [Specification page 1, paragraph 6, lines 3-4; page 2, paragraph 6, lines 1-2] The gutter sections may be attached by fasteners or by heat staking. [Specification page 2, paragraph 7, lines 1-3]

1. Independent claim 7.

Independent claim 7 is directed to a gutter thawing system 10. The gutter thawing system 10 includes a first molded gutter section 14b having a liquid flow passage L and multiple linear hot-air flow passages 16i and 16o. [Specification page 3, paragraph 17, lines 3-4; page 4, paragraph 20, lines 1-3] A second molded gutter section 14c includes multiple non-linear hot-air flow passages 16c connectable to the linear hot-air flow passages 16i and 16o on the first section

14b. [Specification page 3, paragraph 21, lines 1-3] A third gutter section 14a includes an input connector 30i and a return connector 30o in communication with the linear hot-air flow passages 16i and 16o. [Specification page 3, paragraph 19, lines 1-6; page 4, paragraph, lines 1-3.]

2. Independent claim 8.

Independent claim 8 is directed to a gutter thawing system 10. The gutter thawing system 10 includes a first molded gutter section 14b having a liquid flow passage L and multiple linear hot-air flow passages 16i and 16o. [Specification page 3, paragraph 17, lines 3-4; page 4, paragraph 20, lines 1-3] A second molded gutter section 14c includes multiple non-linear hot-air flow passages 16c connectable to the linear hot-air flow passages 16i and 16o on the first section 14b. [Specification page 3, paragraph 21, lines 1-3] A third gutter section 14a includes an input connector 30i and a return connector 30o in communication with the linear hot-air flow passages 16i and 16o. [Specification page 3, paragraph 19, lines 1-6; page 4, paragraph, lines 1-3.] A hot-air supply 18 is in communication with the input connector 30i and the return connector 30o. [Specification page 2, paragraph 15, lines 2-4.]

3. Independent claim 12.

Independent claim 12 is directed to a gutter thawing system 10. The gutter thawing system 10 includes a gutter wall 14 having two spaced apart side walls and a bottom wall 17 defining a liquid passage L. [Specification page 3, paragraph 17, lines 1-4] An air flow passage 16 is located adjacent the liquid passage L and may extend through at least one of the side walls or bottom wall 17. The gutter wall 14 is molded to produce a continuous cross section separating the air flow passage 16 and the liquid flow passage L. [Specification page 1, paragraph 17, lines 4-7.]

Grounds of Rejection to be Reviewed on Appeal

Appellant seeks review of the following grounds of rejection:

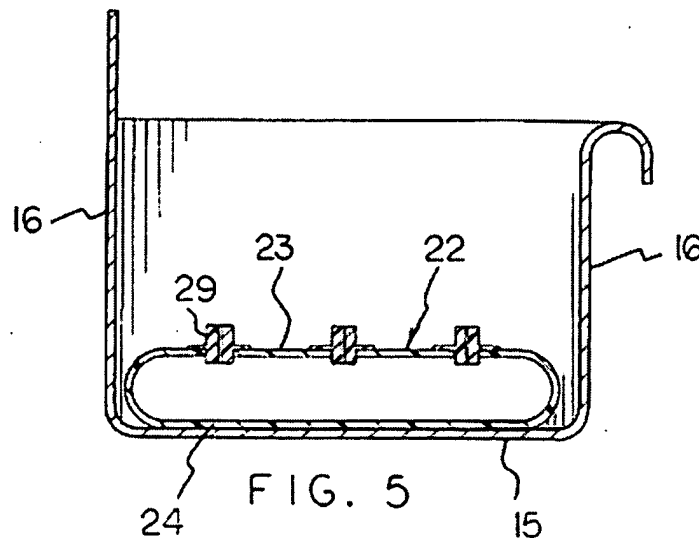
- A. Whether the rejection of claims 2 and 12-16 under 35 U.S.C. §102(b) as being anticipated by Bortugno (5,503,219) is proper.
- B. Whether the rejection of claims 3, 5, and 6 under 35 U.S.C. §103(a) as being unpatentable over Bortugno (5,503,219) is proper.
- C. Whether the rejection of claims 7 and 8 under 35 U.S.C. §103(a) as being unpatentable over Bortugno (5,503,219) in view of Bernardi (3,431,972) is proper.
- D. Whether the rejection of claims 9 and 10 under 35 U.S.C. §103(a) as being unpatentable over Bortugno (5,503,219) in view of Bernardi (3,431,972) and Hamajy (2,240,851) is proper.

Arguments

- A. §102(b) Rejection Over Bortugno.

- 1. Claims 2 and 12-16.

Claim 12 recites “a gutter wall having a continuous cross section separating the liquid passage and the air flow passage, wherein said gutter wall includes two spaced apart side walls and a bottom wall that define a liquid passage.” Figure 5 has been reproduced below for reference. The Examiner interprets the wall 23 of Bortugno as the bottom wall of the claimed “continuous cross section” and walls 16 as the two spaced apart side walls. However, the wall 23 is a distinct and separate piece from the walls 16. Therefore, the Examiner is improperly ignoring the claim limitation of a “continuous cross section” by interpreting walls 16 and 23 as continuous when Figure 5 explicitly shows otherwise. For this reason, the rejection is improper, and Appellant requests that the rejection be reversed.



Claims 2 and 13-16 depend from base claim 12. For this reason, the rejection of claims 13, 14, and 15 is improper, and Appellant requests that the rejection be reversed.

2. Dependent claim 16.

In addition to the argument above for section 1, claim 16 is independently allowable. Claim 16 recites "said air flow passage extends through said solid body and is spaced apart from said continuous upper surface and said continuous lower surface." The Examiner argues that the airflow passage B of Bortugno is spaced apart from the surface the Examiner interprets as the continuous upper surface C and the continuous lower surface D. Figure 5 has been reproduced below with the Examiner's annotations. However, the air flow passage B rests on the continuous upper surface C and is therefore not spaced apart from the continuous upper surface. For this reason, claim 16 is properly allowable, and Appellant requests that the rejection be reversed.

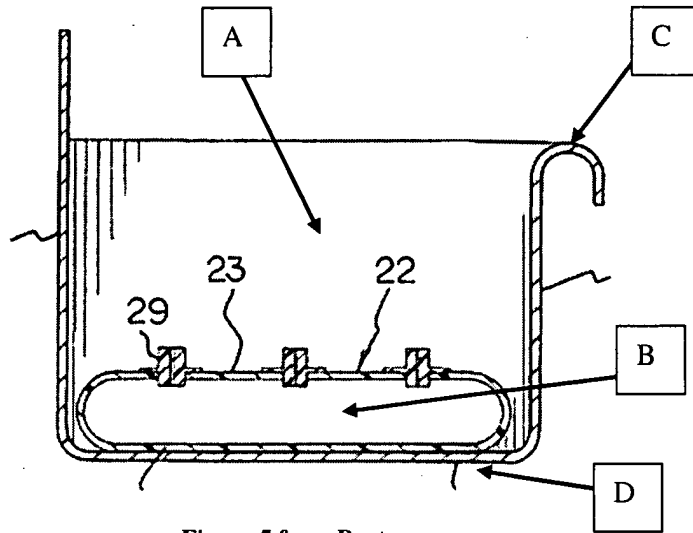


Figure 5 from Bortugno

B. §103(a) Rejection Over Bortugno.

1. Dependent claims 3 and 6.

Claims 3 and 6 depend from base claim 12. For the reasons above in section A.1, the rejection of claims 3 and 6 is improper, and Appellant requests that the rejection be reversed.

2. Dependent claim 5.

The Examiner argues that it would have been obvious at the time the invention was made to a person having ordinary skill in the art to include non-linear portions absent persuasive evidence that the particular configuration of the claimed subject matter was significant. The rejection does not give any reason for modifying the cited reference. Obviousness requires a reason for combining the elements of the prior art in the manner claimed. Rejections based on obviousness cannot be sustained by mere conclusory statements. There must be an articulated reasoning with some rational underpinning to support the conclusion of obviousness, and the reasoning should be made explicit. *KSR International Co. v. Teleflex Inc.* __ U.S. __, 127 S.Ct. 1727, 82 U.S.P.Q.2d 1385 (2007).

Additionally, Appellant is not obligated to provide evidence that claimed subject matter is significant as Examiner suggests (see MPEP 2144.03). The burden is on the Examiner to establish prima facie obviousness and is required to provide supporting reasoning. Once the Examiner has established prima facie obviousness, the Appellant can rebut with secondary considerations, but the Examiner has not established prima facie obviousness.

Additionally, the non-linear portions allow the inlet and outlet air flow passages to flow adjacent each other and thereby increases the heat transfer from the air flow passages to the gutter section. Therefore, the claimed subject matter provides a significant benefit that would not have been predicted by the cited references. For this reason, the rejection of claim 5 is improper, and Appellant requests that the rejection be reversed.

C. §103(a) Rejection Over Bortugno in View of Bernardi.

1. Independent claims 7 and 8.

Claims 7 and 8 recite multiple gutter sections. The Examiner argues that it would have been obvious at the time the invention was made to a person having ordinary skill in the art as a matter of duplication of parts to have this limitation because duplication of parts has no patentable significance unless a new and unexpected result is produced. However, the three gutter sections are different and not duplicates. For instance, the claims recite the first molded gutter section includes linear air flow passages and the second molded gutter section includes non-linear molded air flow passages. Therefore, the reasoning of duplication of parts does not apply.

Additionally, obviousness (MPEP 2143.01(IV)) requires a reason why one of ordinary skill would modify the cited reference to include the missing feature. The rejection does not give any reason for modifying the cited reference to include the three claimed gutter sections.

Claims 7 and 8 recite a third molded gutter section comprising an input connector and a return connector. Neither Bernardi nor Bortugno disclose nor suggest a gutter section with both an inlet connector and a return connector in the same gutter section. The heating system of Bernardi includes a single pass flow passage. By including the inlet and return connector in the

same gutter section, the claimed arrangement provides a dual pass system that would more effectively heat the gutter.

Additionally, Bortugno teaches against the combination of the two references. Bortugno discloses airflow exhaust ports 29 located in an upper portion of an airflow passage. Bernardi discloses a system for removing snow from a roof by mounting a diverter on a roof to bypass the gutters to collect and melt snow to prevent icicles from forming on the edge of the roof. Thus, the system of Bernardi would make heating the gutters in Bortugno unnecessary. Furthermore, the heating system shown in Bernardi does not allow the intake and return passages to run adjacent each other because the system is onepass. Additionally, the snow removal system of Bernardi utilizes hot water, steam, or electrical resistance heating to melt snow that accumulates against the diverter. Exhausting steam or liquid through the exhaust ports of Bortugno would likely result in undesirable icing in cold weather. Therefore, the combination of the Bortugno reference with the Bernardi reference is improper.

Additionally, the Examiner argues that it would have been obvious at the time the invention was made to a person having ordinary skill in the art to include non-linear portions absent persuasive evidence that the particular configuration of the claimed subject matter was significant. Again, Appellant is not required to do so to prove patentability in absence of prima facie obviousness. Furthermore, the non-linear portions allow the inlet and outlet air flow passages to flow adjacent each other and therefore increases the heat transfer from the air flow passages to the gutter section. Applicant points out in Figure 2 that the claimed arrangement allows for a dual pass system where both the intake and return passages heat the gutter section, which would not be expected from duplicating a one-pass passage. In the proposed modifications, elements would have to function beyond what is taught in the references. Therefore, the claimed subject matter provides a significant benefit that would not have been predicted by the cited references. For these reasons, the rejection of claims 7 and 8 is improper, and Appellant requests that the rejection be reversed.

D. §103(a) Rejection Over Bortugno in View of Bernari and Hamajy.

1. Dependant claims 9 and 10.

Claims 9 and 10 depend from base claim 8. For the reasons above in section C.1, claims 9 and 10 are properly allowable, and Appellant requests that the rejection be reversed.

CLOSING

For the reasons set forth above, final rejection of claims 2, 3, 5-10, and 12-16 is improper and must be reversed.

Respectfully submitted,

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CLAIMS APPENDIX

2. The gutter section as recited in claim 12, wherein said air flow passage extends within said bottom wall.

3. The gutter section as recited in claim 12, wherein said air flow passage comprises a multiple of air flow passages.

5. The gutter section as recited in claim 12, wherein said air flow passage comprises a multiple of non-linear air flow passages.

6. The gutter section as recited in claim 12, wherein said air flow passage comprises a multiple of linear air flow passages.

7. A gutter thawing system section comprising:
a first molded gutter section comprising a liquid passage and a first multiple of linear air flow passage adjacent thereto;
a second molded gutter section comprising a second multiple of non-linear air flow passages which connect at least two of said first multiple of linear air flow passages; and
a third molded gutter section comprising an input connector and a return connector, said input connector in communication with at least one of said first multiple of linear air flow passages, and a said return connector in communication with at least one of said first multiple of linear air flow passages.

8. A gutter thawing system section comprising:
a first molded gutter section comprising a liquid passage and a first multiple of linear air flow passage adjacent thereto;

a second molded gutter section comprising a second multiple of non-linear air flow passages which connect at least two of said first multiple of linear air flow passages;

a third molded gutter section comprising an input connector and a return connector, said input connector in communication with at least one of said first multiple of linear air flow passages, and said return connector in communication with at least one of said first multiple of linear air flow passages; and

a hot air supply in communication with said input connector and a return connector.

9. The gutter section as recited in claim 8, further comprising a manifold in communication with said hot air supply and said input connector and a return connector.

10. The gutter section as recited in claim 9, further comprising a fan to raise a pressure of an airflow from said hot air supply to said manifold to above atmosphere.

12. A gutter section comprising:

a molded gutter section having a liquid passage, an air flow passage adjacent thereto, and a gutter wall having a continuous cross section separating the liquid passage and the air flow passage, wherein said gutter wall includes two spaced apart side walls and a bottom wall that define the liquid passage, and wherein the air flow passage extends through at least one of the two spaced apart side walls or the bottom wall.

13. The gutter section as recited in claim 12, wherein said airflow passage extends parallel to said liquid flow passage.

14. The gutter section as recited in claim 12, wherein said gutter wall is common wall that at least partially defines said liquid passage and said airflow passage.

15. The gutter section as recited in claim 12, wherein said gutter wall includes a solid body extending between a continuous upper surface and a continuous lower surface.

16. The gutter section as recited in claim 15, wherein said air flow passage extends through said solid body and is spaced apart from said continuous upper surface and said continuous lower surface.

Serial No. 10/787,429
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EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.